

**LAND APPLICATION SITE**  
**CHARLES E KUNATH, JR SITE**  
**LUCEK 1-6**  
**LUNENBURG COUNTY**

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS**

A. This land application agreement is made on 11/22/14 between Charles E. Kunath Jr. referred to here as "Landowner", and Recyc Systems, Inc. referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

**Landowner:**

The Landowner is the owner of record of the real property located in Haystack, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
	<u>41 A 34</u>	<u>41 A 38</u>	<u>42 A 43</u>
	<u>41 A 37</u>		<u>41 A 10</u>

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☒ The Landowner is the sole owner of the properties identified herein.  
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 36 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Charles Kunath Jr.   Charles Kunath Jr.   1974 Ontario Rd.  
Landowner - Printed Name, Title   Signature   Mailing Address & Phone Number

**Permittee:**

Recyc Systems, Inc., the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Stinko   Stinko   PO Box 562 Remington, Virginia 22734  
Permittee - Authorized Representative   Signature   Mailing Address

# VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Recyc Systems, Inc County or City: Lunenburg  
 Landowner: Charles Kunath Jr.

## Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
  - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
  - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
  - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
  - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
  - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
  - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
  - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
  - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:
 

Following biosolids application to pasture or hayland sites:

  - a. Meat producing livestock shall not be grazed for 30 days,
  - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
  - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Charles Kunath Jr. 10/22/14  
 Landowner's Signature Date

Charles Kunath Jr. 1974 Ontario Rd. Keysville, Va. 23947  
 Farm Operator Signature Mailing Address & Phone Number  
 (434) 736-8357  
 cell - (434) 390-7720

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS**

A. This land application agreement is made on 10/22/14 between Mulha Jean Jeta Kunath referred to here as "Landowner", and Recyc Systems, Inc., referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

**Landowner:**

The Landowner is the owner of record of the real property located in Keysville, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
			41 A 10
	41 A 32	41 A 34	42 A 43

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☒ The Landowner is the sole owner of the properties identified herein.  
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids

☒ Yes ☐ No

Water treatment residuals

☒ Yes ☐ No

Food processing waste

☒ Yes ☐ No

Other industrial sludges

☒ Yes ☐ No

Jean J. Kunath

Landowner - Printed Name, Title

Jean Kunath

Signature

1974 Ontario Rd.  
Keysville Va. 22947

Mailing Address & Phone Number

(434) 836-8357

cell- (434) 390-7715

**Permittee:**

Recyc Systems, Inc., the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Stumbo

Permittee - Authorized Representative  
Printed Name

Stumbo

Signature

PO Box 562 Remington, Virginia 22734

Mailing Address

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT**

Permittee: Recyc Systems, Inc

County or City: Lunenburg

Landowner: Jean Ji Kunath

**Landowner Site Management Requirements:**

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

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Jean Kunath  
Landowner's Signature

10/22/14  
Date

Charles Kunath, Jr.  
Farm Operator Signature

1974 Antonio Rd. Keyville, Va. 23947  
Mailing Address & Phone Number

(434) 736-8357  
(434) 390-7720

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS**

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**Landowner:**

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	<u>41 A 37</u>		<u>41 A 10</u>

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

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<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Charles Kunath Jr. Landowner - Printed Name, Title      Charles Kunath Jr. Signature      1974 Ontario Rd. Haystack Va. 23947 Mailing Address & Phone Number

**Permittee:**

Recyc Systems, Inc., the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

[Signature] Permittee - Authorized Representative Printed Name      [Signature] Signature      PO Box 562 Remington, Virginia 22734 Mailing Address

# Recyc Systems, Inc

## Charles E. Kunath, Jr. Site

County	Owner	Operator	FSA Tract No.	Recyc Field No.	Acres	Date of Last Application
Lunenburg	Charles E. Kunath, Jr.	Charles E. Kunath, Jr.	T3718 Field 2,4	LUCEK 1	21.5	
			T3718 Field 1	LUCEK 2	25.7	
			T3731 Field 1	LUCEK 3	3.5	
			T3731 Field 1	LUCEK 4	25.8	
			T15781 Field 3	LUCEK 5	7.1	
			T15781 Field 2	LUCEK 6	13.3	

# RECYC SYSTEMS, INC

## FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
LUCEK 1	21.5	-	-	-	-	CM07	TM41A,P37, 38	3718
LUCEK 2	25.7	-	-	-	-	CM07	TM41A,P37, 38	3718
LUCEK 3	3.5	-	-	-	-	CM07	TM41A,P34	3731
LUCEK 4	25.8	-	-	-	-	CM07	TM41A,P34	3731
LUCEK 5	7.1	-	-	-	-	CM01	TM41A,P32	15781
LUCEK 6	13.3	12B	-	-	-	CM01	TM41A,P32	15781
TOTAL ACRES IN SITE	96.9							

**Report Number:**

R09183-0064

**Account Number:**

70594

**A&L Eastern Laboratories, Inc.**

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401

Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



**Send To:** RECYC SYSTEMS INC  
POB 562  
REMINGTON, VA 22734

**Grower:** C E KUNATH JR/LUCEK  
LUNENBURG

**Submitted By:** J B CRENSHAW

**Farm I D:**

**Field I D:**

**SOIL ANALYSIS REPORT**

**Page:** 1

**Date Received:** 7/2/2009

**Date of Analysis:** 7/3/2009

**Date of Report:** 7/7/2009

**Analytical Method(s):**  
Mehlich III

Sample Number	Lab Number	Organic Matter			Phosphorus		Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C.	
		% EN	ENR lbs/A Rate		Available ppm RaRate	Reserve ppm RaRate	K ppm RaRate	MG ppm RaRate	CA ppm Rate	NA ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g	
1	13227	3.7	11	1111 MM	35 M M		80 L L	175 H H	913 MM		5.3	6.7	28	9.0	
2	13228	3.5	11	1100 MM	47 M M		99 M M	122 M M	638 L L		5.2	6.7	23	6.8	
3	13229	4.2	12	1233 MM	22 L L		87 M M	162 H H	718 L L		5.3	6.7	23	7.5	
4	13230	4.2	12	1244 MM	54 H H		136 H H	161 H H	674 L L		5.4	6.7	20	7.1	
5	13231	2.8	9	96 MM	24 L L		64 L L	157 H H	663 L L		5.4	6.7	1.9	6.7	
Sample Number	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm Rate	SO4-S ppm Rate	ZN ppm Rate	MN ppm Rate	FE ppm Rate	CU ppm Rate	B ppm Rate		ms/cm Rate	CL ppm Rate
1	2.3	16.1	50.5		31.0										
2	3.7	15.0	47.1		34.1										
3	3.0	18.0	48.0		31.0										
4	4.9	19.3	47.5		28.3										
5	2.5	19.6	49.6		28.3										

A&amp;L-Soil

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by:  
A & L EASTERN LABORATORIES, INC.

by:

*Paul Chu*  
Paul Chu, Ph.D.

**Report Number:**

R09183-0064

**Account Number:**

70594

**A&L Eastern Laboratories, Inc.**

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401

Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



**Send To:** RECYC SYSTEMS INC  
POB 562  
REMINGTON, VA 22734

**Grower:** C E KUNATH JR/LUCEK  
LUNENBURG

**Submitted By:** J B CRENSHAW

**Farm I D:**

**Field I D:**

**SOIL ANALYSIS REPORT**

**Page:** 2

**Date Received:** 7/2/2009

**Date of Analysis:** 7/3/2009

**Date of Report:** 7/7/2009

**Analytical Method(s):**

Mehlich III

Sample Number	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity		C.E.C.				
		%	ENR lbs/A	Rate	Available ppm	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g						
6	13262	2.4	87	L	16	L		61	L	153	H	895	M		5.5	6.7	2.0	8.0							
Sample Number	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum	
	K %	Mg %	Ca %	Na %	H %	NO3-N		SO4-S		ZN		MN		FE		CU		B		ms/cm	Rate	CL		AL	
						ppm	Rate	ppm	Rate	ppm	Rate	ppm	Rate	ppm	Rate	ppm	Rate	ppm	Rate			ppm	Rate	ppm	Rate
6	2.0	16.0	56.2		25.8																				

AL-E-S01

Values on this report represent the plant available nutrients in the soil.  
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).  
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),  
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).  
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by:

*Paul Chu*  
Paul Chu, Ph.D.

Report Number:  
R09183-0064  
Account Number:  
70594

# A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



To: RECYC SYSTEMS INC  
POB 562  
REMINGTON, VA 22734

For: C E KUNATH JR/LUCEK  
LUNENBURG

Copy To: J B CRENSHAW

Attn: SUSAN TRUMBO

Date Received: 07/02/2009  
Date Reported: 07/07/2009

## SOIL FERTILITY RECOMMENDATIONS

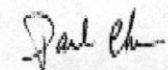
Page: 11

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1	Adj pH To 6.8		2.8	0	0	0	0						
2	Adj pH To 6.8		2.5	0	0	0	0						
3	Adj pH To 6.8		2.5	0	0	0	0						
4	Adj pH To 6.8		2.3	0	0	0	0						
5	Adj pH To 6.8		2.3	0	0	0	0						

ALE-Rec

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made."

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Paul Chu, Ph.D.

Report Number:  
R09183-0064  
Account Number:  
70594

# A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia (804) 743-9401  
Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



To: RECYC SYSTEMS INC  
POB 562  
REMINGTON, VA 22734

For: C E KUNATH JR/LUCEK  
LUNENBURG

Copy To: J B CRENSHAW

Attn: SUSAN TRUMBO

Date Received: 07/02/2009  
Date Reported: 07/07/2009

## SOIL FERTILITY RECOMMENDATIONS

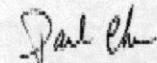
Page: 22

Sample ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P2O5 lb/A	Potash K2O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
6	Adj pH To 6.8		2.3	0	0	0	0						

ALE-Rec

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made."

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Paul Chu, Ph.D.

THE PLANNER IS NOT STATE CERTIFIED

***Nutrient Management Plan Balance Sheet***  
***(Fall, 2009-Winter, 2010)***  
***Charles E Kunath Jr***  
***Planner: Recyc Systems***

Tract: 15781      Location: Lunenburg  
 (N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
0/LUCKE 5(N)	7/7	2009 2010	Fescue hay estb. Fescue grass hay mt.	40-130-130 70-50-95	0/0 0/0				40-130-130 70-180-225	N/A N/A			

**Commercial Application Methods:**

br - Broadcast ba - Banded sd - Sidedress

**Notes:**

Tract: 3718

Location: Lunenburg

(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
2 4/LUCEK 1(N)	22/22	2009	Hay/Pasture	100-50-95	0/0				100-50-95	N/A			
1/LUCEK 2(N)	26/26	2009	Hay/Pasture	100-40-95	0/0				100-40-95	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 3731

Location: Lunenburg

(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
1/LUCEK 3(N)	4/4	2009 2010	Fescue hay estb. Fescue grass hay mt.	40-140-130 70-60-95	0/0 0/0				40-140-130 70-200-225	N/A N/A			
1/LUCEK 4(N)	26/26	2009	Hay/Pasture	100-40-70	0/0				100-40-70	N/A			
2/LUCEK 6(N)	13/13	2009	Fescue hay estb.	40-150-140	0/0				40-150-140	N/A			
		2010	Fescue grass hay mt.	70-70-110	0/0				70-220-250	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

**THE PLANNER IS NOT STATE CERTIFIED**

**Charles E Kunath Jr Narrative**

The Charles E Kunath Jr. Site is located in Lunenburg County. The farm consists of hay and pasture land.

This partial plan is written for the purpose of obtaining a biosolids permit. Biosolids application has not been shown since it is uncertain when a permit will be obtained. The partial plan will be revised prior to biosolids application to obtain a target biosolids application rate.

**Soil Test Summary**

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
15781	LUCKE 5	7	2009-Su	M (35 P ppm)	M (80 K ppm)	A&L MIII	5.3		
3718	LUCEK 1	22	2009-Su	M (35 P ppm)	M (80 K ppm)	A&L MIII	5.3		
3718	LUCEK 2	26	2009-Su	H- (47 P ppm)	M (99 K ppm)	A&L MIII	5.2		
3731	LUCEK 3	4	2009-Su	M- (22 P ppm)	M (87 K ppm)	A&L MIII	5.3		
3731	LUCEK 4	26	2009-Su	H- (54 P ppm)	H- (136 K ppm)	A&L MIII	5.4		
3731	LUCEK 6	13	2009-Su	L+ (16 P ppm)	M- (61 K ppm)	A&L MIII	5.5		

### Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
15781	15781/0	LUCKE 5	7	Georgeville	IVb	IV II	III	IV	
3718	3718/2 4	LUCEK 1	22	Georgeville	IVb	IV II	III	IV	
	3718/1	LUCEK 2	26	Georgeville	IVb	IV II	III	IV	
3731	3731/1	LUCEK 3	4	Georgeville	IVb	IV II	III	IV	
	3731/1	LUCEK 4	26	Georgeville	IVb	IV II	III	IV	
	3731/2	LUCEK 6	13	Georgeville	IVb	IV II	III	IV	

### Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	≥170	≥80	≥64	≥6	≥4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	≤4	3.0-3.5
IV	100-130	50-60	40-48	NA	≤3.0
V	≤100	≤50	≤40	NA	NA

## Farm Summary Report

**Plan:** New Plan Fall, 2009 - Winter, 2010

**Farm Name:** Charles E Kunath Jr

Location: Lunenburg

Specialist: Recyc Systems

**Tract Name:** 15781

FSA Number: 15781

Location: Lunenburg

**Field Name:** LUCKE 5

Total Acres: 7.10 Usable Acres: 7.10

FSA Number: 0

Tract: 15781

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

### **Conservation Practices:**

Pasture (>75% cover)

### *P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

### **Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.3	M(35 P ppm)	M(80 K ppm)	A&L MIII	

### **Field Warnings:**

**Tract Name:** 3718

FSA Number: 3718

Location: Lunenburg

**Field Name: LUCEK 1**

Total Acres: 21.50 Usable Acres: 21.50

FSA Number: 2 4

Tract: 3718

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

**Conservation Practices:**

Pasture (>75% cover)

*P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

**Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.3	M(35 P ppm)	M(80 K ppm)	A&L MIII	

**Field Warnings:**

**Field Name: LUCEK 2**

Total Acres: 25.70 Usable Acres: 25.70

FSA Number: 1

Tract: 3718

Location: Lunenburg

Slope Class: C Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

**Conservation Practices:**

Pasture (>75% cover)

*P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

**Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.2	H-(47 P ppm)	M(99 K ppm)	A&L MIII	

**Field Warnings:**

**Tract Name:** 3731

FSA Number: 3731

Location: Lunenburg

**Field Name:** LUCEK 3

Total Acres: 3.50 Usable Acres: 3.50

FSA Number: 1

Tract: 3731

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

**Conservation Practices:**

Pasture (>75% cover)

*P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

**Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.3	M-(22 P ppm)	M(87 K ppm)	A&L MIII	

**Field Warnings:**

**Field Name: LUCEK 4**

Total Acres: 25.80 Usable Acres: 25.80

FSA Number: 1

Tract: 3731

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

**Conservation Practices:**

Pasture (&gt;75% cover)

*P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

**Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.4	H-(54 P ppm)	H-(136 K ppm)	A&L MIII	

**Field Warnings:****Field Name: LUCEK 6**

Total Acres: 13.30 Usable Acres: 13.30

FSA Number: 2

Tract: 3731

Location: Lunenburg

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

**Conservation Practices:**

Pasture (&gt;75% cover)

*P-Index Summary*

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

**Soil Test Results:**

DATE	PH	P	K		Lab
Su-2009	5.5	L+(16 P ppm)	M-(61 K ppm)	A&L MIII	

**Field Warnings:**

**Tract Name:** Default Tract

FSA Number: 0

Location: Lunenburg

# MAPS

# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 2 miles

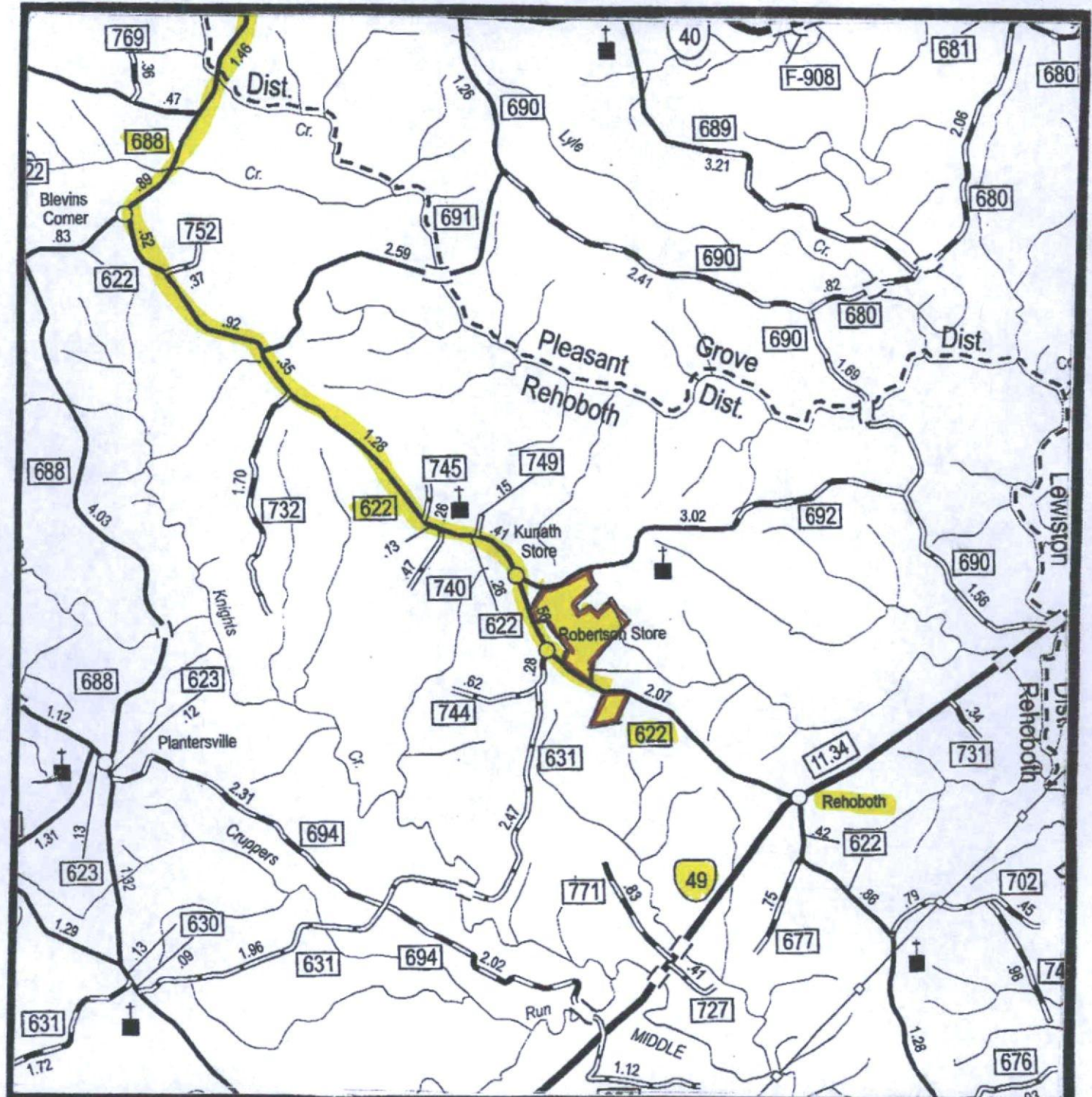
LUCEK 1-6

**VICINITY MAP**



# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 2 mile

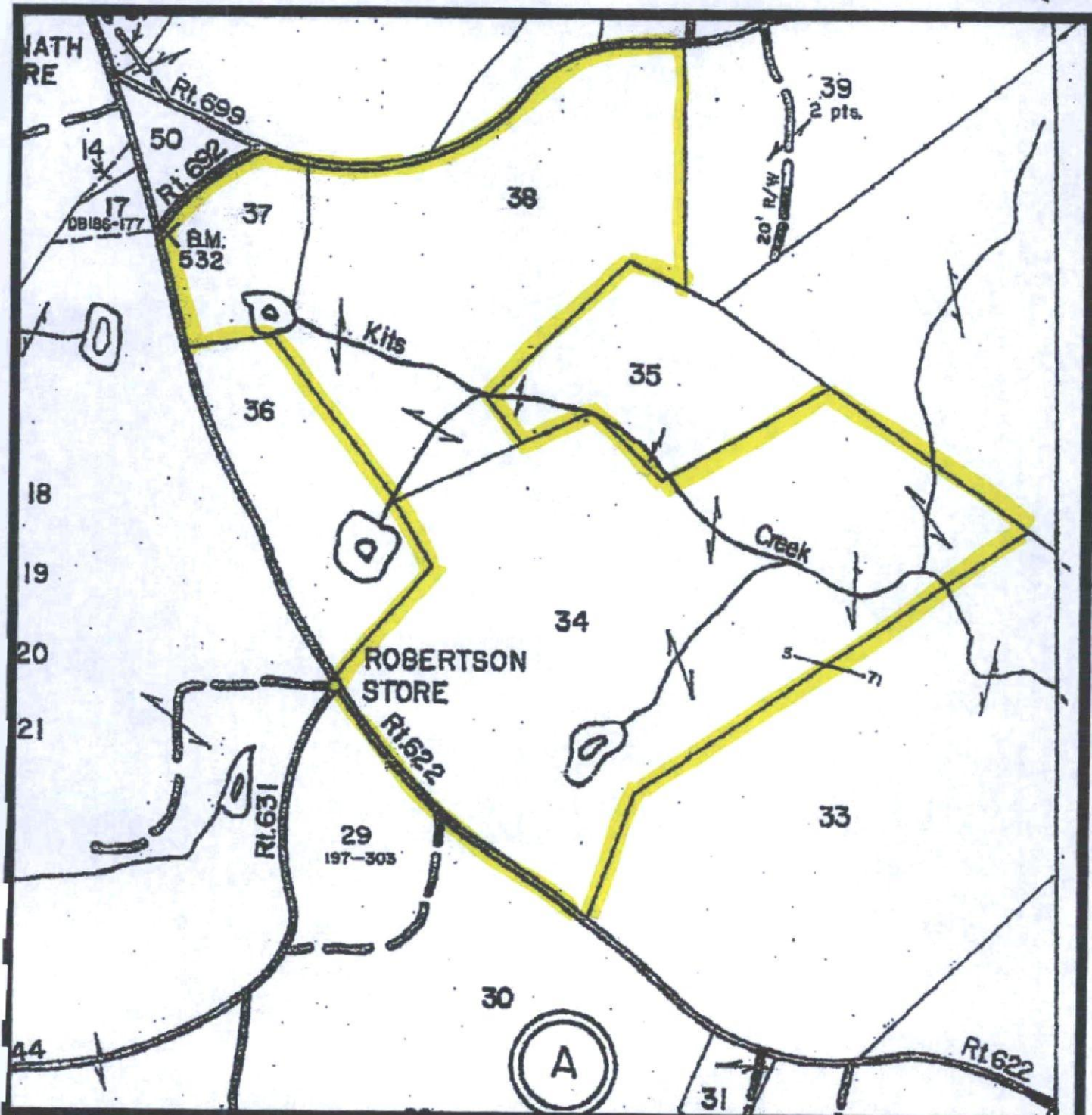
LUCEK 1-6

**VICINITY MAP**



# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

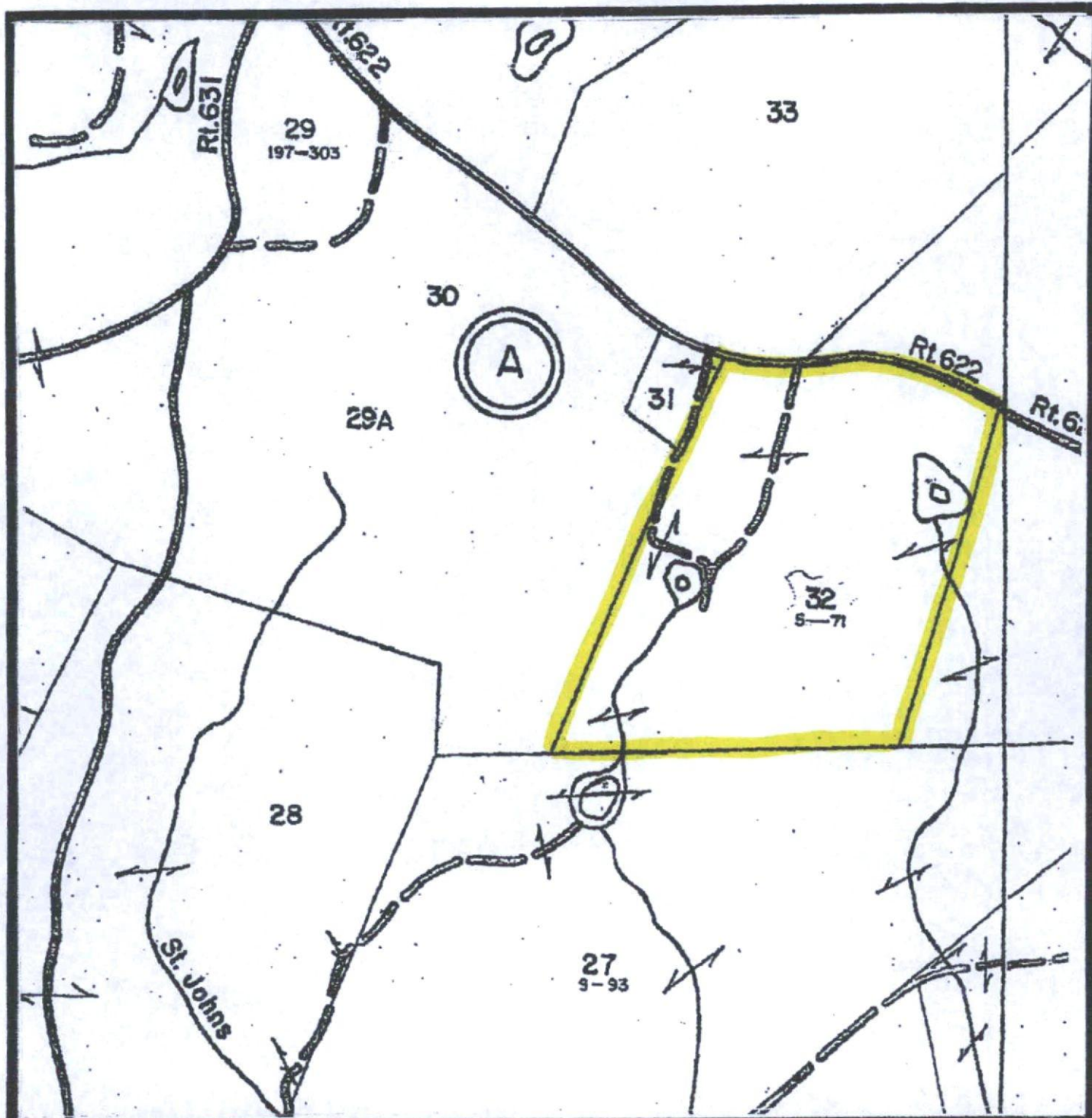
LUCEK 1-4

**TAX MAP**

N  
▲

# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

LUCEK 5-6

**TAX MAP**



# ADJOINING LANDOWNERS

CHARLES E. KUNATH, JR. Site

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## LUNENBURG COUNTY

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Tax Map	Parcel #	Owner Name(s)
41A	18-21	N. Harvey Jeter
	21A	Anna Butner Jeter
	27-28	Nathaniel B. Pennington, etal
	29	David L. or Gracita A. Francesconi
	29A	N. Harvey or Melba C. Jeter
	31	N. Harvey Jeter
	33	Velma Harding Pennington
	35	Statewide Realty Company
	36	Edward H. Jeter
	39	J. A. Devin, Jr.
	41	Charles R. Slayton
	42	William G. or Irene G. Hample
	45-49	Charles R. Slayton
	50	Kerwin Glenn Kunath
42A	10	Linda Carol Kunath Brooks

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(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

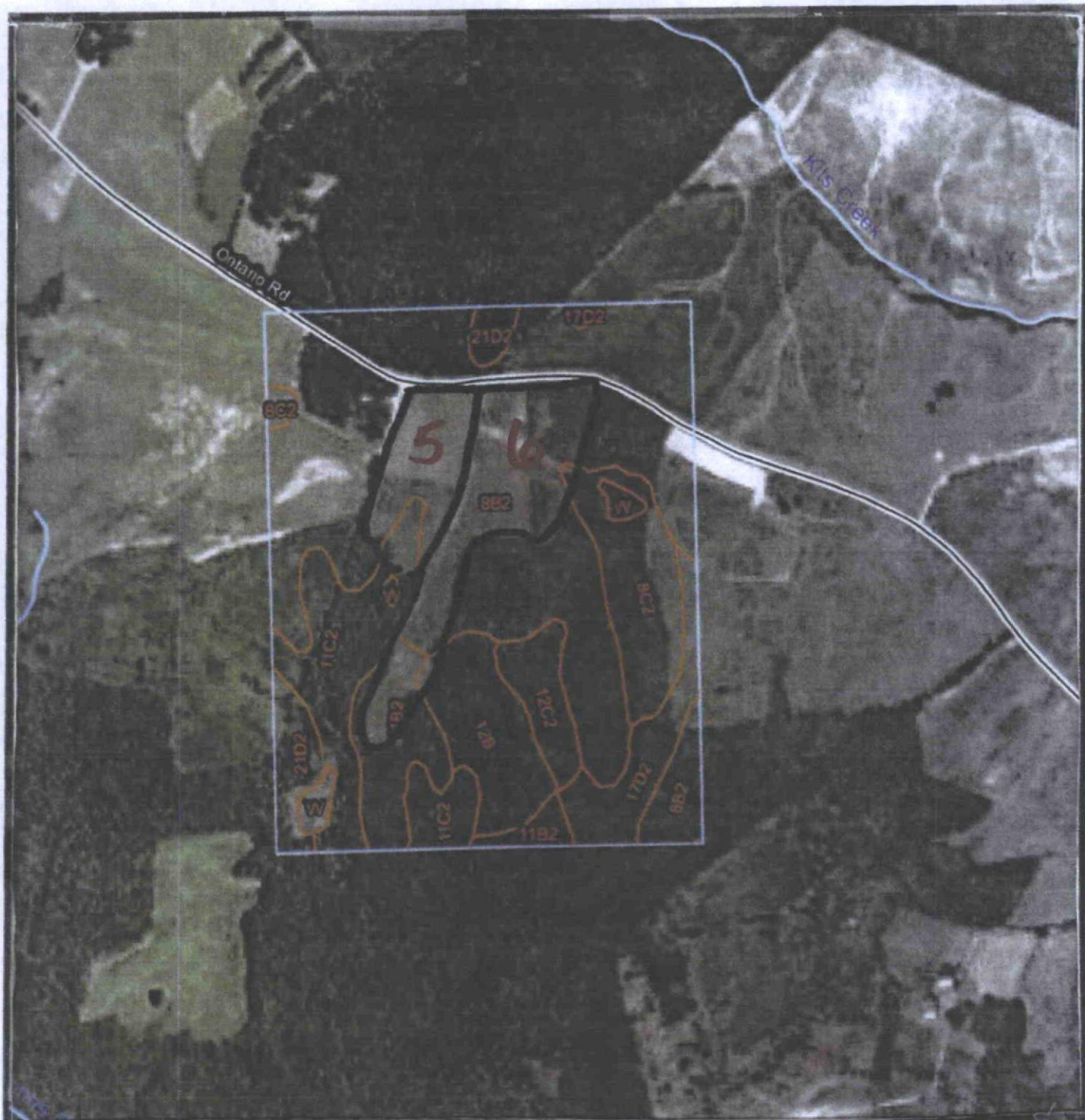
LUCEK 1-4

**SOIL MAP**



# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

LUCEK 5-6

**SOIL MAP**

N  
↑

# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

LUCEK 1-2

**AERIAL MAP**



# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)






**Scale:** 1 inch = 660 feet

LUCEK 3-6

**AERIAL MAP**

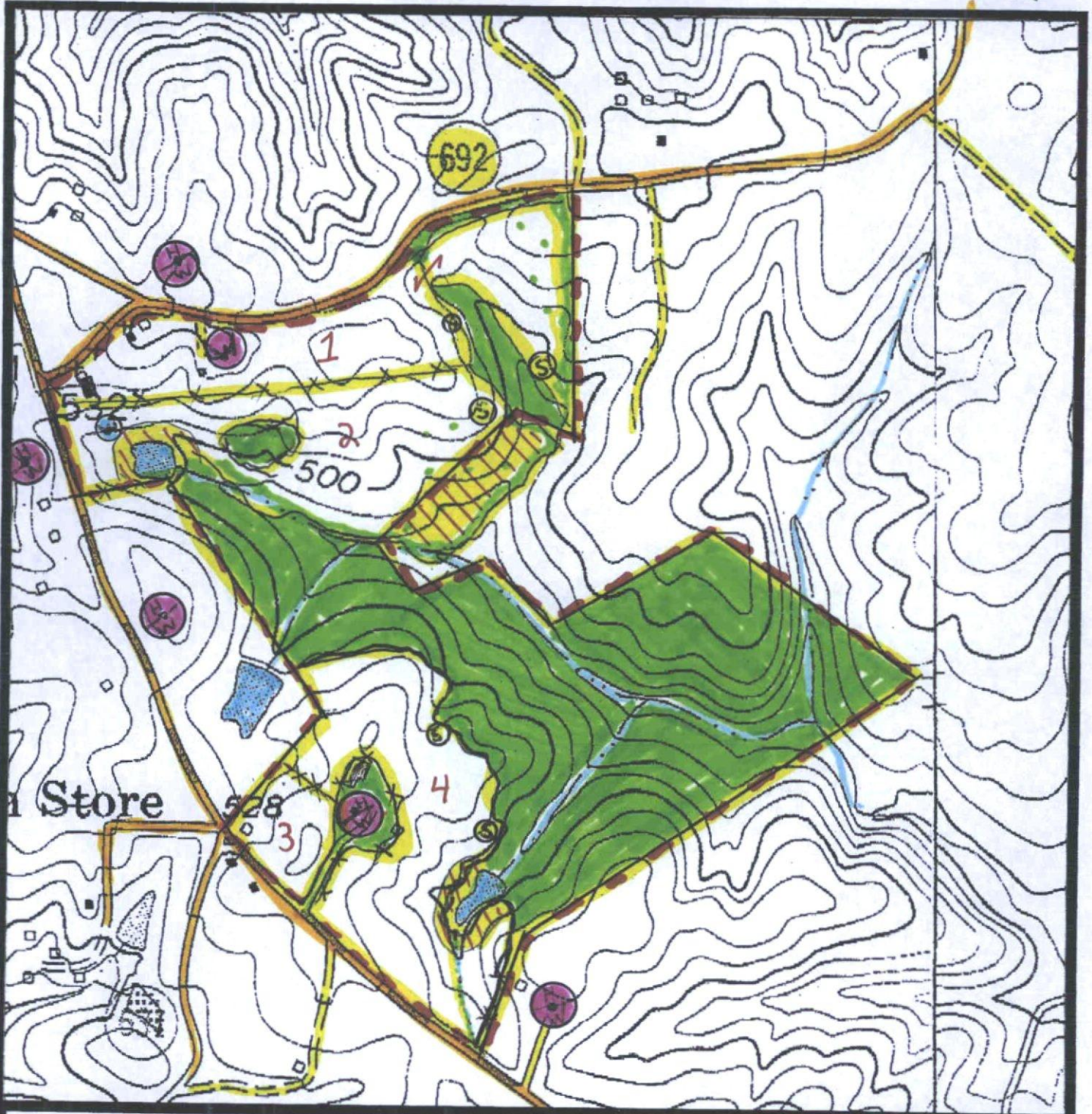


## Legend for Site Plan

	House and Well
 	Well / Spring
 	Perennial Streams & Surface
 	Wet Spot
	Intermittent Stream / Drainage
	Trees and Woods
	Private Drive
	Rock / Rocky Area
	Sinkhole
	Severely Eroded Spot
	State Road
 	Field Boundary / Fence
	Property Line
	Slope
	Frequent Flooded Soil

# Recyc Systems<sup>TM</sup> Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 660 feet

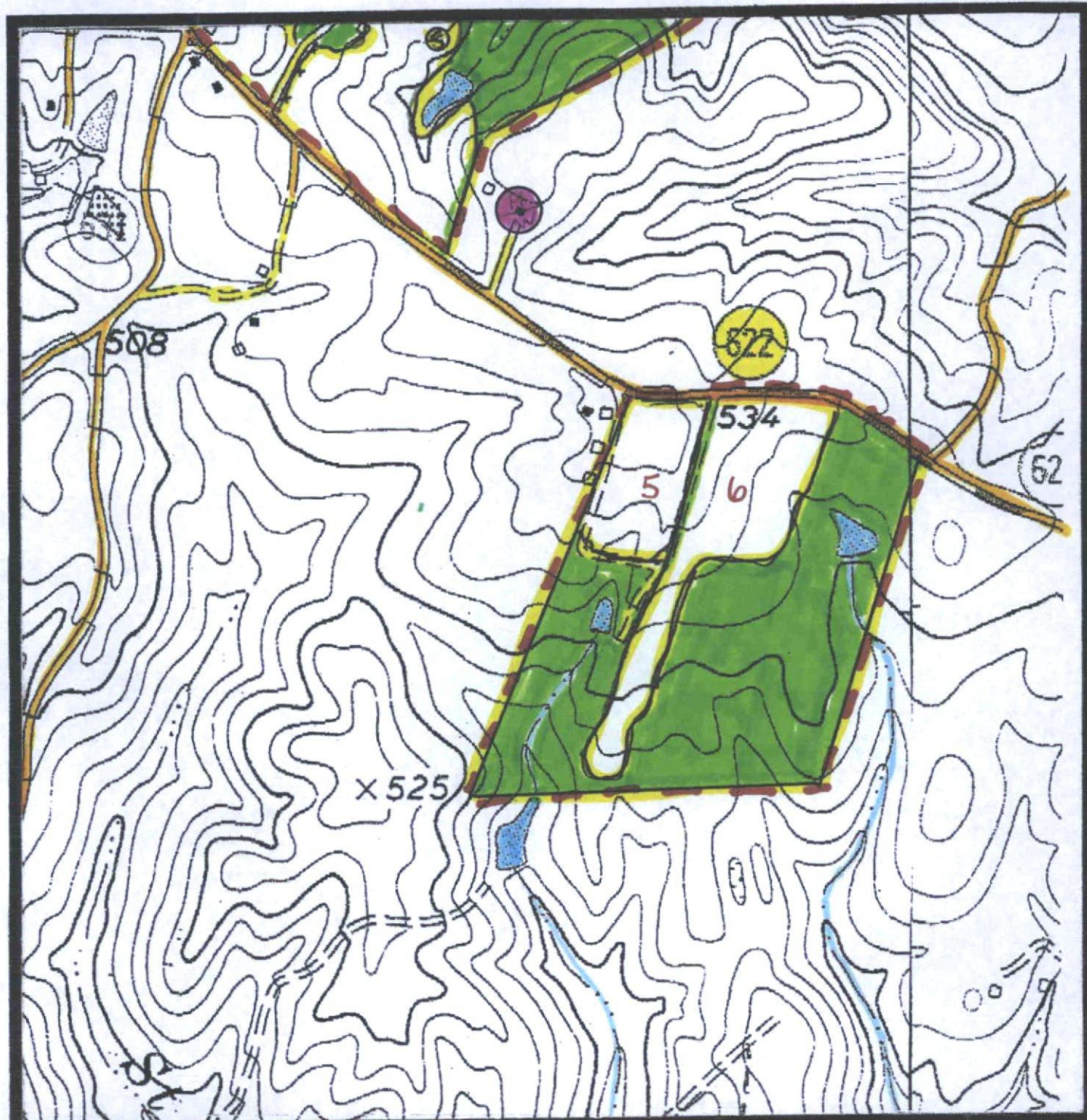
LUCEK 1-4

**SITE PLAN**

**N**  
▲

# Recyc Systems<sup>TM</sup> Inc.

**(Biosolids Land Application)**



**Scale:** 1 inch = 660 feet

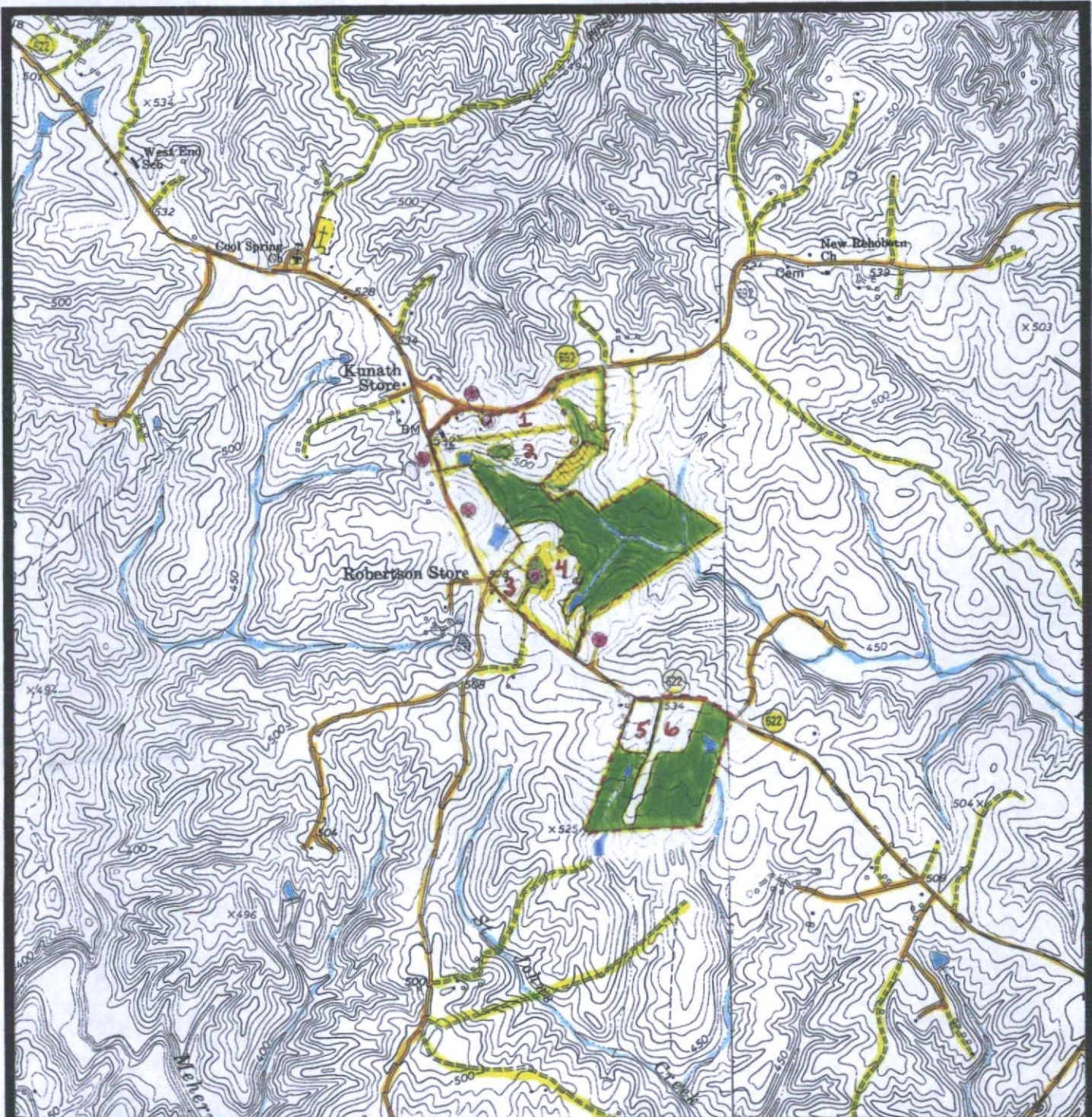
LUCEK 5-6

## SITE PLAN

N  
A

# Recyc Systems™ Inc.

(Biosolids Land Application)



**Scale:** 1 inch = 2000 feet

LUCEK 1-6

**TOPOGRAPHIC MAP**

